

REMARKS

Claim 17 and both instances of claim 22 have been cancelled. Claims 10, 14-16 and 18-20 have been amended. Claims 24-25 have been added. Claims 10-16, 18-21 and 23-25 remain for further consideration. No new matter has been added.

The objections and rejections shall be taken up in the order presented in the Official Action.

1-2. Claims 10-11 and 20 currently stand rejected under 35 U.S.C. §102 for allegedly being anticipated by the subject matter disclosed in U.S. Patent 5,390,342 to Takayama (hereinafter "Takayama").

Claim 10

Claim 1 of the present invention recites "[a] method for selecting one of several receivers of a diversity receiving system, comprising comparing the levels of control signals of the automatic gain control of the receivers, and selecting the receiver whose control signal has the lowest level." (emphasis added, cl. 10). It is alleged in the Official Action that "Takayama teaches a method for selecting one of several receivers of a diversity receiving system comprising comparing the level of signals of an automatic gain control of the receivers and selecting a receiver who control signal has the lowest level (see col. 1, lines 16-20, col. 4, lines 61-65, and col. 6, lines 20-22)." (Official Action, pg. 2). However, a fair and proper reading of Takayama clearly reveals that this reference neither discloses, nor suggests,

"...comparing the levels of control signals of the automatic gain control of the receivers."
(emphasis added, cl. 10).

Specifically, the sections of Takayama cited in the Official Action for allegedly being of particular relevance teach the use of "fuzzy logic" to perform the receiver selection. For example, col. 4, lines 61-65 of Takayama teach that a fuzzy inference unit 31 (see FIG. 2 of Takayama) receives a field strength signal S_1 and a noise strength signal N_1 . The fuzzy inference unit 31 then operates on these signals to determine which of the receivers to select. Significantly, neither of these signals is a control signal associated with the *automatic gain control* of the receivers. That is, Takayama discloses S_1 is indicative of field strength, while N_1 is indicative of noise. Neither of these signals is indicative of automatic gain control.

Takayama even expressly teaches away from automatic gain control. Specifically, Takayama states in the background of the invention:

"On the other hand, when attention is drawn to the internal problem of the receiving system, there are instances where there may occur small differences in the power gain of the front ends of the two respective receiving systems. To compensate such an unevenness in the operating characteristic (amplification degree), it is conceivable to use a gain controller. However, using the gain controller at high frequency circuits such as a front end, etc. is not preferable in view of generation of noise." (emphasis added, col. 1, line 65 - col. 2, line 6).

Accordingly, the clear and unambiguous language of Takayama expressly teaches away from automatic gain control, and therefore of course any system that utilizes information indicative of automatic gain control.

A 35 U.S.C. §102 rejection requires that a single reference teach each and every element of the claimed invention. Hence, Takayama is incapable of anticipating claim 10 since

it fails to disclose “...*comparing the levels of control signals of the automatic gain control of the receivers*” as set forth in claim 10.

Claim 20

As amended, claim 20 recites a diversity receiver system that includes:

a plurality of radio receivers that each provide a uniquely associated receiver output signal and a uniquely associated receiver control signal that is indicative of the amount of gain applied by said associated radio receiver to create said uniquely associated receiver output signal; and

a selection mechanism that receives said receiver control signals, and determines which of said radio receivers has applied the smallest gain correction to its associated receiver output signal, and provides a diversity receiver output signal indicative of said receiver output signal associated with the receiver that the smallest gain correction. (emphasis added, cl. 20).

As set forth above, Takayama neither discloses nor suggests a system that determines which of the receivers to select based upon a control signal indicative of the amount of *automatic gain correction* applied. Hence, Takayama is incapable of anticipating claim 20. In addition, Takayama even teaches away from such a system (see col. 1, col. 1, line 65 - col. 2, line 6).

2. Claims 12-19 currently stand rejected under 35 U.S.C. §103 for allegedly being obvious in view of the combined subject matter disclosed in Takayama and U.S. Patent 5,777,693 to Kishigami et al (hereinafter “Kishigami”).

Claim 16

Claim 16 has been amended to include the features set forth in claim 17. Claim 16 now recites a receiver selection system that provides an output signal selected from at least a first and second radio receiver. The selection system recited in claim 16 includes:

a comparator that receives a first control signal from one of the radio receivers and a second control signal from another of the radio receivers... ; and
a switching element responsive to said selection signal, ... , wherein
said first control signal is indicative of the amount of gain applied by first automatic gain control circuitry of said first radio receiver to create said first data signal, and said second control signal is indicative of the amount of gain applied by second automatic gain control circuitry of said second radio receiver to create said second data signal. (emphasis added, cl. 16).

It is recognized in the Official Action that Takayama *"does not teach a first data signal and second signal, or based upon a state of a selection signal selecting as the output signal either a first data or a second data signal."* (Official Action, pg. 4). It is then alleged *"Kishigami teaches generating and supplying a data signal (see col. 9, lines 45-48)"* (Official Action, pg. 4). The Official Action then contends that a skilled person would have modified Takayama based upon this alleged teaching of Kishigami. However, assuming for the moment, but without admitting, that Takayama and Kishigami are even combinable, the resultant combination still neither discloses nor suggests a diversity receiver that selects from receivers based upon the control signals indicative of the amount of gain applied by automatic gain control circuitry associated with the receivers.

In addition, a person working in the field of diversity radio receivers that select a receiver based upon a control signal indicative of the amount of automatic gain control would

not look to Takayama since this reference teaches away from gain control. Specifically, Takayama discloses:

“On the other hand, when attention is drawn to the internal problem of the receiving system, there are instances where there may occur small differences in the power gain of the front ends of the two respective receiving systems. To compensate such an unevenness in the operating characteristic (amplification degree), it is conceivable to use a gain controller. However, using the gain controller at high frequency circuits such as a front end, etc. is not preferable in view of generation of noise.” (emphasis added, col. 1, line 65 - col. 2, line 6).

Hence, a fair and proper reading of Takayama reveals that it teaches away from gain control, and thus the claimed invention. Accordingly, it is respectfully submitted that claim 16 contains allowable subject matter.

It is respectfully submitted that the §103 rejection of claims 12-15 is moot, and these claims are now allowable since they depend either directly or indirectly from independent claim 10, which is patentable for at least all the reasons set forth above.

Claim 17 has been cancelled, since claim 16 has been amended to include the features set forth in claim 17.

Claims 18 and 19 have been amended to depend from claim 16. It is respectfully that this rejection of claims 18 and 19 is moot, since independent claim 16 is patentable at least all the reasons set forth above.

3. Claims 21-23 currently stand rejected under 35 U.S.C. §103 for allegedly being obvious in view of the combined subject matter disclosed in Takayama, Kishigami and U.S. Patent 5,745,845 to Suenaga et al (hereinafter “Suenaga”).

It is respectfully submitted that this rejection is now moot, since independent claim 20 is patentable for at least the reasons set forth above.

Attention is drawn to the fact that the application inadvertently included two instances of claim 22, which have both been cancelled. The subject matter of both instances of claim 22 is now set forth in claims 24-25. Accordingly, it is respectfully submitted that claims 24-25 are allowable since they depend indirectly from claim 20, which is allowed for at least the reasons set forth above.

For all the foregoing reasons, reconsideration and allowance of claims 10-16 and 18-21 and 23-25 is respectfully requested.

If a telephone interview could assist in the prosecution of this application, please call the undersigned attorney.

Respectfully submitted,



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VERSION WITH MARKINGS TO SHOW CHANGES MADE

IN THE CLAIMS:

Cancel claim 17 and the two claims numbered as claim 22. The application inadvertently includes two instances of claim 22, which are both being cancelled and added as claims 24-25.

Amend claims 10, 14-16, 18-19 and 20 as follows:

10.(amended) A method for selecting one of several receivers of a diversity receiving system, comprising comparing the levels of control signals of the automatic gain control of the receivers, and selecting [that]the receiver whose control signal has the lowest level.

14.(amended) The method of claim 13, wherein switch-over in response to selection of the receiver [is selected] whose control signal has the lowest level is performed between transmission of data blocks [block of data transmissions].

15.(amended) The method of claim 14, wherein switchover from one video receiver to another one occurs with line or picture synchronization.

16.(amended) A receiver selection system that provides an output signal selected from at least a first and second radio receiver, said selection system comprising:

a comparator that receives a first control signal from one of the radio receivers and a second control signal from another of the radio receivers, and determines which of said control signals has the lowest level value and provides a selection signal indicative of the selected control signal; and

a switching element responsive to said selection signal, which receives a first data signal from the first radio receiver and a second data signal from the second radio receiver, and based upon the state of said selection signal selects as the output signal either said first data signal or said second data signal, wherein

said first control signal is indicative of the amount of gain applied by first automatic gain control circuitry of said first radio receiver to create said first data signal, and said second control signal is indicative of the amount of gain applied by second automatic gain control circuitry of said second radio receiver to create said second data signal.

18.(amended) The receiver selection system of claim [17]16, wherein said first and second data signals include audio data.

19.(amended) The receiver selection system of claim [17]16, wherein said first and second data signals include video data.

20.(amended) A diversity receiver system, comprising:

a plurality of radio receivers that each provide a uniquely associated receiver output signal and a uniquely associated receiver control signal indicative of the amount of gain applied by said associated radio receiver to create said uniquely associated receiver output signal[received radio signal power]; and

a selection mechanism that receives said receiver control signals, and determines which of said radio receivers has applied the smallest gain correction to its associated receiver output signal, and provides a diversity receiver output signal indicative of said receiver output signal associated with the receiver that the smallest gain correction.

Add claims 24-25 as follows:

--24. The diversity receiver system of claim 21, wherein said plurality of radio receivers comprising a plurality of television receivers.--

--25. The diversity receiver system of claim 21, wherein said plurality of radio receivers comprising a plurality of audio receivers.--